WHAT IS CLAIMED IS:

1. A power amplifier comprising:

a single circuit board having a plurality of subcircuits thereon;

a chassis body and a lid structure for coupling with the chassis body to contain the circuit board;

at least one wall extending from the lid structure and surrounding a subcircuit to electrically isolate the subcircuit from other subcircuits on the circuit board.

2. The power amplifier of claim 1 wherein one of said subcircuits is a high power gain subcircuit, the at least one wall surrounding the high power gain subcircuit.

3. The power amplifier of claim 1 wherein said wall forms a cavity for containing said subcircuit.

4. The power amplifier of claim 1 wherein the circuit board includes a ground path formed along a surface of the board, the wall coupling with a portion of the ground path for grounding the wall and the lid structure.

5. The power amplifier of claim 4 wherein said ground path is shaped to surround a portion of the subcircuit, the wall having a shape generally corresponding to the shape of the ground path.

6. The power amplifier of claim 1 wherein said circuit board has multiple conductive layers separated by a dielectric layer, a first conductive layer being coupled to components of the subcircuits and a second conductive layer defining a ground plane.

7. The power amplifier of claim 6 further comprising a third conductive layer separated from the second conductive layer by a dielectric layer and configured for distributing signals across the circuit board and between subcircuit components.

8. The power amplifier of claim 6 further comprising a fourth conductive layer separated from the third conductive layer by a dielectric layer and having a ground plane.

9. The power amplifier of claim 6 wherein said first conductive layer includes at least one controlled impedance circuit, the second conductive layer ground plane completing the controlled impedance circuit.

10. The power amplifier of claim 8 wherein said fourth conductive layer is electrically coupled to the chassis body.

11. The power amplifier of claim 8 wherein said fourth conductive layer is substantially metallized.

12. The power amplifier of claim 1 wherein said lid structure includes component clearance areas adapted to provide clearance for components of the subcircuits.

13. The power amplifier of claim 1 wherein said chassis body includes a least one coupling channel formed therein to allow coupling connections between subcircuits.

14. The power amplifier of claim 1 wherein the wall includes a pathway formed therein for connecting subcircuits together.

15. The power amplifier of claim 1 further comprising a gasket coupled to said wall for further isolating the subcircuit.

16. The power amplifier of claim 1 wherein the chassis body includes at least one channel adapted to contain at least one subcircuit extending downwardly from the circuit board.

17. A power amplifier comprising:

a single circuit board having a plurality of subcircuits thereon;

a chassis body with a conductive ground surface;

a lid structure for coupling with the chassis body to contain the circuit board, the lid structure including walls extending therefrom to electrically isolate the subcircuits from each other;

a ground isolation path formed in the circuit board and surrounding at least a portion of one of the subcircuits, a lid structure wall being electrically coupled to the ground isolation path for isolating the subcircuit.

18. The power amplifier of claim 17 wherein the ground isolation path is electrically coupled with the chassis body ground surface.

19. The power amplifier of claim 17 wherein the lid structure wall coupled to the ground isolation path has a shape generally corresponding to the ground isolation path.

20. The power amplifier of claim 17 further comprising a gasket coupled to the wall and positioned between the wall and the ground isolation path.

21. The power amplifier of claim 17 wherein said circuit board has multiple conductive layers separated by a dielectric layer, a first conductive layer being coupled to components of the subcircuits and another conductive layer defining a ground plane, the another conductive layer being electrically coupled to the chassis body ground surface.

22. The power amplifier of claim 21 wherein said first conductive layer includes at least one controlled impedance circuit, the another conductive layer ground plane completing the controlled impedance circuit.

23. The power amplifier of claim 17 wherein the ground isolation path includes a plurality of plated vias extending into the circuit board.

24. A power amplifier comprising:

a multiple-layer circuit board having a plurality of subcircuits thereon and defining a ground plane in one of the layers;

a chassis body and a lid structure for coupling with the chassis body to contain the circuit board, the circuit board ground plane layer being coupled to the chassis body;

a plurality of plated vias extending through the circuit board to electrically couple to the ground plane layer, the plurality of vias forming a ground isolation path positioned between at least two subcircuits;

at least one wall extending from the lid structure and coupled to the ground isolation path to electrically isolate the subcircuit from other subcircuits on the circuit board.

25. The power amplifier of claim 24 wherein said circuit board has multiple conductive layers separated by a dielectric layer, a first conductive layer being coupled to components of the subcircuits and another conductive layer defining a ground plane.

26. The power amplifier of claim 24 further comprising a gasket coupled between said at least one wall and the ground isolation path for further isolating the subcircuit.

27. The power amplifier of claim 17 wherein the lid structure wall coupled to the ground isolation path has a shape generally corresponding to the ground isolation path.

28. A power amplifier comprising:

a single circuit board having a power supply subcircuit and a high power gain subcircuit thereon;

a chassis body and a lid structure for coupling with the chassis body to contain the circuit board;

at least one wall extending from the lid structure and disposed between the power supply and high power gain subcircuits to electrically isolate those subcircuits.

29. The power amplifier of claim 28 wherein the circuit board includes an isolation ground path formed along a surface of the board, the wall coupling with a portion of the isolation ground path.

30. The power amplifier of claim 28 wherein said isolation ground path is shaped to surround a portion of one of the subcircuits, the wall having a shape generally corresponding to the shape of the isolation ground path.

31. The power amplifier of claim 28 wherein the ground isolation path is electrically coupled with the chassis body.

32. The power amplifier of claim 28 wherein the ground isolation path includes a plurality of plated vias extending into the circuit board.

33. The power amplifier of claim 28 wherein said circuit board has multiple conductive layers separated by a dielectric layer, a first conductive layer being coupled to components of the subcircuits and another conductive layer defining a ground plane, the plated vias coupling to the ground plane.

34. The power amplifier of claim 28 wherein said power supply subcircuit and a high power gain subcircuit are positioned generally at opposite ends of the circuit board.

35. A method of isolating subcircuits of a power amplifier comprising:

positioning a plurality of subcircuits on a single circuit board;

mounting the circuit board in a chassis body;

positioning a lid structure having walls extending therefrom over the circuit board such that the walls surround at least one subcircuit and electrically isolate it from another subcircuit.

36. The method of claim 35 further comprising forming an isolation ground path along a surface of the circuit board and coupling the walls with at least a portion of the isolation ground path for grounding the wall and the lid structure.

37. The method of claim 35 further comprising shaping the isolation ground path to generally follow the shape of the walls surrounding the at least one subcircuit.

38. The method of claim 35 further comprising coupling a gasket to walls surrounding the subcircuit for further isolating the subcircuit.

39. The method of claim 35 further comprising positioning a power supply subcircuit and a high power gain subcircuit on the circuit board and positioning them generally at opposite ends of the circuit board.

40. The method of claim 35 further comprising plating a perimeter of the single printed circuit board with conductive material.

41. A method of isolating subcircuits of a power amplifier comprising:

positioning a plurality of subcircuits on a single circuit board;

mounting the circuit board in a chassis body;

positioning a lid structure having a wall extending therefrom over the circuit board such that the wall surrounds at least one subcircuit and electrically isolates it from another subcircuit;

forming an isolation ground path along a surface of the circuit board and coupling the wall with at least a portion of the isolation ground path for grounding the wall and the lid structure.

42. The method of claim 41 wherein the chassis body includes a ground surface and further comprising electrically coupling the ground isolation path with the chassis body ground surface.

43. The method of claim 41 wherein the lid structure wall coupled to the ground isolation path has a shape generally corresponding to the ground isolation path.

44. The method of claim 41 further comprising positioning a gasket between the wall and the ground isolation path.

45. The method of claim 42 wherein said circuit board has multiple conductive layers separated by a dielectric layer, and further comprising coupling a first conductive layer to components of the subcircuits and coupling another conductive layer to the chassis body ground surface.

46. The method of claim 46 further comprising forming a plurality of plated vias to extend into the circuit board for forming the isolation ground path.